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info@umathx.com

The “U” in UMathX is ... “UNDERSTANDING”



RUDY NEUFELD - AUTHOR



webinar series with UMathX

Times: We will accommodate you at the following times but also try to accommodate you at other times that are convenient for you.

CDT – Baton Rouge / Houston / Chicago/ Birmingham

EDT – Dominican Republic / NY / Detroit / Toronto / Atlanta

Atlantic Time – Charlottetown / Halifax

Instructions Before the Webinar

Register at info@umathx.com 24 hours before session.

Registered attendees will be invited to the webinar by email at the begin time.

The Learning Environment

- Play the video: *UMathX–What is it?* at www.umathX.com > Media > Videos

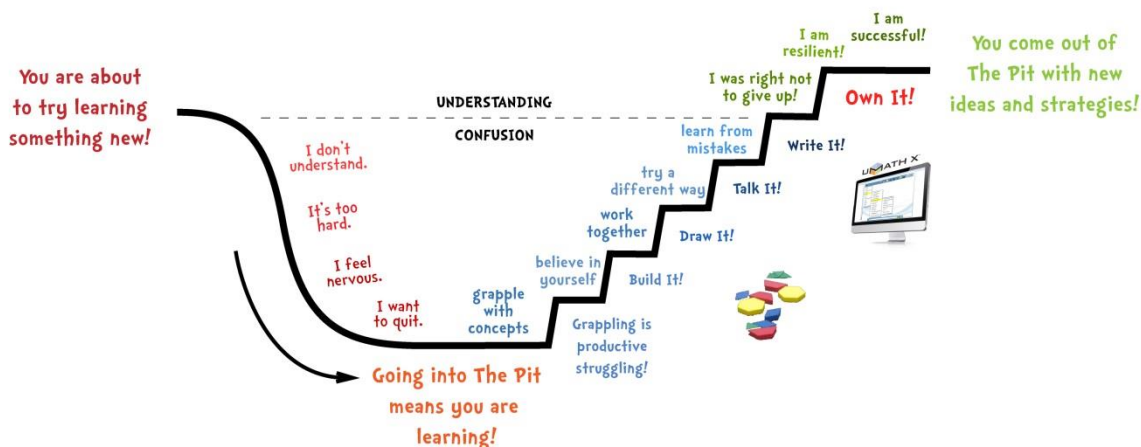


NEEDS:

- computer
- internet
- pattern blocks
- frameworks
- pencil/pen
- crayons

The Learning Pit

A Model for a Growth Mindset



- Play the video <http://www.jamesnottingham.co.uk/learning-pit>
- Enter the URL www.umathx.com/preview into the address box of any browser.
Enter the Username that you have been given for this UMathX session.
Enter the Generic Password: **umathx**

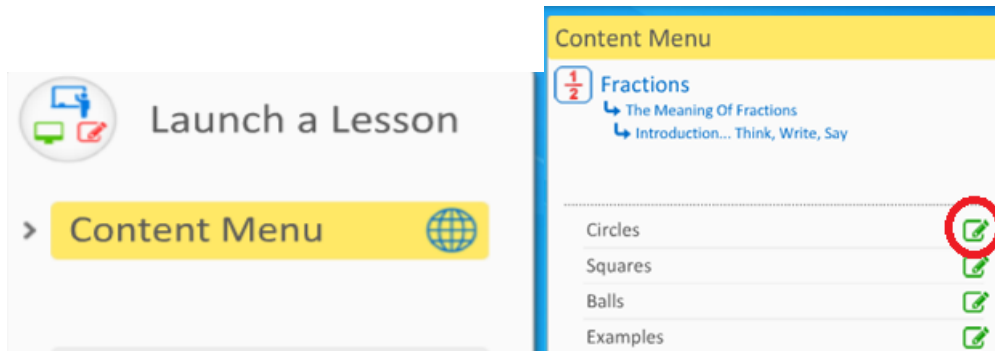
Concept: Fractions: Concept...Equivalent...Addition



On Computer, select the – **Content Menu**.

Follow the path below:

Fractions > The Meaning of Fractions > Introduction...Think, Write Say



Note a green pencil beside “Circles” which indicating that a **FRAMEWORK**, a 3 part model lesson for this concept exists on paper. Click on it and print it. Follow directions.

Before beginning, make sure that you have computer, framework, pencil, crayons and real pattern blocks as well as a partner.

Framework for Learning:

Leader's Name:

Co-Leader's Name:

Fraction Introduction Pattern Blocks – 1

Instructor's Initials:

Getting Started:

In **UMath X** follow the path in the Content Menu:
Fractions > The Meaning of Fractions > Introduction – Think, Write, Say
Select and work through the Sub Lessons: **Circles> Squares> Balls> Examples**

Now **talk** about the main ideas in the above sub lessons.
Then **write** down the main ideas below:



Now return to **UMath X** and follow the path in the Content Menu:
Fractions > The Meaning of Fractions > Pattern Blocks

Select and work through 4 of 5 of the Sub Lessons:
Example 1> Example 2> Example 3> Example 4
Put your computer aside when you get to **Example 5**.

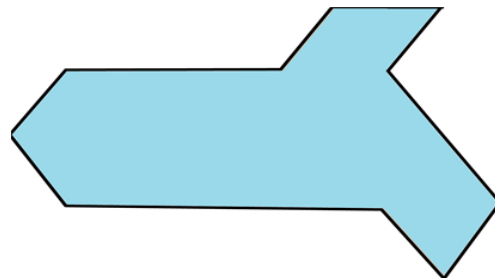


Talk about the main ideas in the above sub lessons.

Write down the main ideas below.

Working At It:

Work away from the computer.
Use pattern blocks to cover the shape below with **only yellow, red and blue** pattern blocks. (~~not~~ green)



The largest face of the **yellow** pattern block is called a _____.

The largest face of the **red** pattern block is called a _____.

The largest face of the **blue** pattern block is called a _____.

What fraction of the design is yellow? _____

What fraction of the design is red? _____

What fraction of the design is blue? _____

Now leave the yellow, blue and red blocks in place but cover all block with green blocks.
Now name each of the fractions above in another way. (We are dealing with **equivalent fractions**)

Reflect and Connect:

Now return to a computer and login into **UMath X** and navigate to the Content Menu:
Fractions> The Meaning of Fractions > Pattern Blocks> Example 5

Work through **Example 5** to check your work in the **WORKING AT IT** section above.

Talk, and then write about fractions with different names.

Now design a question for your group.

Build It. Draw It. Talk It. Write It. Now you OWN It!



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To UMathX ... www.umathx.com/preview

On Computer, key in the URL www.umathx.com/preview and Login to **UMathX – Content Menu**.

Follow the path below:



Fractions > Equivalent Fractions > Introduction



Note a green pencil icon beside “**Square**” indicating that a **FRAMEWORK**, a 3 part model lesson for this concept exists on paper. Click on it and print it. Follow directions.

Before beginning, make sure that you have computer, framework, pencil, crayons and real pattern blocks as well as a partner.

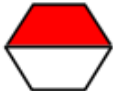
UMATH X
Framework for Learning: Equivalent Fractions – 1
 Leader Name:
 Co-Leader's Name: Instructor's Initials:


Getting Started:
 In **UMATH X** follow the Content Menu path:
Fractions > Equivalent Fractions > Introduction
 As you work through the lessons **Square** and **Triangle**, complete the corresponding models and notes below.

Square  **Conclusion:** and are _____ fractions. 

Triangle  **Conclusion:** and are _____ fractions. 


Working In It: Complete the models and statements for each of the following.


Color one section of this model red.  of the hexagon is shaded red.

Color sections of this model green to create an equivalent fraction.  of the hexagon is shaded green.

Circle the correct answer to complete the comparisons.
 The sizes of the two figures are: a) the same b) different.
 The shapes of the figures are: a) the same b) different.
 The colored portions of the shapes are: a) the same b) different.

Conclusion: and are _____ fractions.

Color one section of this model red.  of the hexagon is shaded red.



Color sections of this model green to create an equivalent fraction.  of the hexagon is shaded green.



Circle the correct answer to complete the comparisons.
 The sizes of the two figures are: a) the same b) different.
 The shapes of the figures are: a) the same b) different.
 The colored portions of the shapes are: a) the same b) different.



Conclusion: and are _____ fractions.


In **UMATH X** follow the Content Menu path:
Fractions > Equivalent Fractions > Pattern Blocks > Hexagon 1 and Hexagon 2
 Compare your answers above with those in the lessons.
 Correct any mistakes.

Reflect & Connect:
 Study and compare each pair of shapes carefully.
 Think about the following questions:
 Do the shaded regions of each pair of shapes represent **equivalent fractions**? Why or why not?


Pair 1:  

Pair 2:  

Pair 3:  

 Discuss your observations and thoughts with a partner.
 Write a short paragraph on a separate sheet of paper summarizing your discussion.

Build it. Draw it. Talk it. Write it. Now you OWN it!


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On Computer, key in the URL www.umathx.com/preview and Login to **UMathX – Content Menu**.

Follow the path below:

Fractions > Adding Fractions > Word Problems

Note a green pencil icon beside “**Eating Candy**” indicating that a **FRAMEWORK**, a 3 part model lesson for this concept exists on paper. Click on it and print it. Follow directions.

Before beginning, make sure that you have computer, framework, pencil, crayons and real pattern blocks as well as a partner.

Framework for Learning: Adding Fractions – Word Problems with Unlike Denominators - 1

Leader's Name:

Instructors Initials:

Getting Started:

$\frac{2}{3} + \frac{5}{8} = ?$

Example 1
The lowest common denominator of $\frac{1}{3}$ and $\frac{1}{4}$ is _____

$$\frac{1}{3} \times \frac{4}{4} = \frac{4}{12}$$

$$\frac{1}{4} \times \frac{3}{3} = \frac{3}{12}$$

$$\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$$

Example 2
The lowest common denominator of $\frac{3}{5}$ and $\frac{2}{7}$ is _____

$$\frac{3}{5} \times \frac{7}{7} = \frac{21}{35}$$

$$\frac{2}{7} \times \frac{5}{5} = \frac{10}{35}$$

$$\frac{21}{35} + \frac{10}{35} = \frac{31}{35}$$

Working In It:

Log into **UMathX**.
From the Content Menu, follow the path below:
Fractions > Adding Fractions > Word Problems > Eating Candy > Goal Scoring > Taking a Walk



Eating Candy
Elliot and Cathy got some candy from their grandmother. Elliot ate one quarter of the candy, and his sister ate one third. How much candy did the two eat?

Original Problem with Unlike Denominators: Elliot Cathy

Problem with Like Denominators: Elliot Cathy

_____ + _____ = _____

_____ + _____ = _____

Solution: _____

Goal Scoring
Tyler and Garrett play hockey. Tyler scored one sixth of the team's goals. Garrett scored one eighth of the team's goals. What fraction of the team's goals did the two players score?

Original Problem with Unlike Denominators: Tyler Garrett

Problem with Like Denominators: Tyler Garrett

_____ + _____ = _____

_____ + _____ = _____

Solution: _____

Taking a Walk
Nadia and Kate were walking. Nadia walked one sixth of a kilometer. Kate walked one half of a kilometer. What was the total distance walked by both of them?

Original Problem with Unlike Denominators: Nadia Kate

Problem with Like Denominators: Nadia Kate

_____ + _____ = _____

_____ + _____ = _____

Solution: _____

Reflect & Connect: Complete the following on a separate sheet of paper.

Discuss the process of adding fractions with **unlike denominators** with a partner. Write a short paragraph summarizing the steps.

Write two word problems involving adding fractions with **unlike denominators** for your partner to solve. Require your partner to include the following for each problem: 1) an addition sentence, and 2) a model. When both of you have finished solving each other's problems, exchange papers. Discuss and correct any mistakes before turning in your work to your teacher.

Build It. Draw It. Talk It. Write It. Now you OWN It!



In this Framework, model 3 part lesson, you used UMathX on Computer, Framework on Paper, Pattern Blocks

IN SUMMARY:

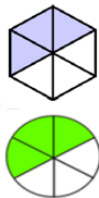
We have completed a set of 3 subset lessons on ..

Concept of Fractions .. to .. Equivalent Fractions .. to .. Addition of Fractions

The following is a problem given in Summary to Obrien School in Tanzania.

Additional Problem for Monday, March 12

A Problem in Fractions For O'Brien School ... on Adding Fractions on Ice in Canada. Make up a Problem.



Original Problem with Unlike Denominators: Elisha Salome

New Problem with Like Denominators: Sylam Daria

_____ + _____ = _____

_____ + _____ = _____

Solution: _____

You write the problem. Elisha and Salome each score a fraction of Team O'Brien's goals for their Ice Hockey team. Elisha scores ... & Salome scores ...

Your partner will solve the problem _____

Build It. Draw It. Talk It. Write It. Now you OWN It!